ICT & FET & FSTP IN HORIZON 2020

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Channels for H2020 ICT Funding

- H2020 projects in LEIT (eg. Research and Innovation Actions, Innovation Actions, SME Instrument, FTI projects, Prizes)
- H2020 projects in Societal Challenges (same)
- H2020 projects in Excellent Science (eg. Marie Curie Projects, FET, EIC, Infrastructures)
- ECSEL JTI, AAL, ERA-NETs
- Calls for Third Parties / Expressions of Interest through large initiatives – also known as Cascading Grants (eg. PPP projects, Large Scale Pilots, Smart Anything Everywhere, I4MS, IoT EU platforms, FET Flagships etc.)





Guide to ICT-related activities in WP

- Comprehensive coverage of the three H2020 pillars
- Detailed list of calls and topics
- Available on H2020 website



A guide to ICT-related activities in WP2018-20 (2020 update)

ICT in H2020 - an overview

ICT is present in many of the H2020 areas. This guide is designed to help potential proposers find ICT-related topics across the different parts of H2020 in work programme 2018-20.

Like in previous work programmes (2014-15 and 2016-17), actions supported through the last phase of Horizon 2020 will cover the **full innovation chain**, from basic research to market uptake:

- Advanced research to uncover radically new technological possibilities and ICT contributions to upstream research and innovation are addressed in the "scelleter science" part of the work programme, respectively under "future and emerging technologies" and European research infrastructures ("Infrastructures);
- Research and innovation activities on generic ICT technologies either driven by industrial roadmaps or through a bottom-up approach are addressed in the Teadership in enabling and industrial technologies' (LEIT) part of the work programme;
- Multi-disciplinary application-driven research and innovation leveraging ICT to tackle societal challenges are addressed in the different 'societal challenges'.

However, although the overall structure of this work programme is similar to previous ones, a few changes need to be taken into account:

- A new part is introduced to implement a pilot of the European Innovation Council (EIC), bringing together several
 innovation support schemes: the SME Instrument, the Fast Track to Innovation (FTI), FET Open, and Horizon
 Prizes. Each addresses the needs of a particular community in the innovation ecosystem.
- Activities aiming at supporting innovative SMEs through the dedicated SME instrument are now all grouped together in a single fully bottom-up topic.
- As part of the EIC pilot, FET Open should provide a bold exploratory engine that shatters the frontiers of current thinking, and aims at combining high scientific ambition with concrete technological implications.
- While the concept of focus area has been strengthened further, the 'cross-cutting activities' part introduced in the previous work programme is now replaced by virtually linked calls.
 - A smaller number of major actions which cut across the programme boundaries are implemented as focus areas. Each of these aligns with major political or policy drivers, and is endowed with a substantial budget to allow for work of sufficient scale, depth and breadth. The linking of topics from different parts of the work programme is achieved through aligning aspects of the implementation such as proposal submission deadlines and evaluation procedures, and also putting in place measures to share information and create synengies between ongoing projects throughout the life-cycle (e.g. publicity, project monitoring). At the same time, the 'contributing' calls and topics remain within the structure and logic of their respective work programme parts in Horizon 2020. Overall the expected effect is to get more from the same investment and build critical mass where it is needed





Upcoming calls in ICT

- ICT Call 2020 April 22
 - Artificial Intelligence & Technologies for Digitising European Industry and Economy – robotics, AI photonics
 - European Data Infrastructure: Cloud computing
 - 5G: beyond 5G + verticals
 - Next Generation Internet: inclusive
 - International: Africa + EU DIH
- Digital Transformation Call 2020 April 22
 - Digital Innovation Hubs: photonics
 - Platforms: Rural economies, Smart Hospitals



Upcoming calls in FET / EIC

- FET Open 2020 May 13
 - Any multidisciplinary topic
- FET Innovation Launchpad 2020 Oct 14
- FETPROACT / EIC opening / deadline will change
 - Neuromorphic computing, environmental intelligence, virtual social experience, nanometrology, digital twins in life science
- FET HPC 2020 April 22
 - International Co-operation





Public Private Partnerships in ICT

Joint Technology Initiative

- **ECSEL** (Electronic Components and Systems for European Leadership)
 - √ 1,215 b€ from EU
 - √ 3,6 b€ (out of which 1,2 b€ from Member States) from industry
 partners and other sources

Contractual PPPs

- 5G
- Photonics
- Robotics
- High Performance Computing
- Factories of the Future
- Green Vehicles
- Big Data
- Cyber-security





Partnerships+ in Horizon Europe

candidate digital partnerships include

- Key Digital Technologies
- High Performance Computing
- Smart Networks and Services
- Artificial Intelligence/data/robotics
- Photonics
- Made in Europe
- Cybersecurity (HE + DEP)?





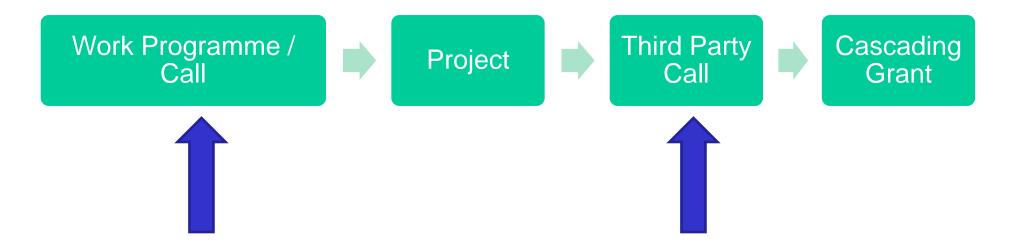
Digital Centric Partnerships

- **Key Digital Technologies** (proposed as institutionalised) addressing the technological challenges and emerging opportunities for Europe on key digital technologies. This include microelectronics, embedded software and smart microsystems enlarged with elements of photonics, higher-layers of software and complex system integration
- **High Performance Computing** (proposed as institutionalised) to develop and deploy highly competitive and innovative HPC ecosystems in Europe. It will build on the experience gained in EuroHPC for achieving world-class exascal eand post-exascale (HPC) technologies in Europe, including their integration with Quantum computing
- **Smart Networks and Services** (proposed as institutionalised) to strengthen the position of the European industry in the global race on digital connectivity infrastructures including "5G and beyond" and later "6G" network systems and associated services
- **Artificial Intelligence, data and robotics** (proposed as co-programmed) with a strong socio-economic transformational potential with impact in sectors like health, manufacturing, ship-building, construction, service industries and farming, etc.
- **Photonics**(proposed as co-programmed) with a strong and growing impact on a broad variety of end user industries, developing next-generation photonics components and systems fostering synergies and coordination amongst research and industrial actors.

Digital Transformation Partnerships

- **Innovative Health Initiative**: collaborative platform bringing the pharmaceuticals, diagnostics, medical devices, imaging and digital sectors together for precompetitive R&I in areas of unmet public health need, to accelerate the development and uptake of people-centred health care innovations.
- Large-scale innovation and transformation of health systems in a digital and ageing society: improving health and care models in an ageing, data-driven and digital society, shifting to holistic health promotion and person-centred care approaches through health policy and health systems research.
- **Made in Europe**: Towards a competitive discrete manufacturing industry with a world-leading reduction of the environmental footprint whilst guaranteeing the highest level of well-being for workers, consumers and society.
- Mobility and Safety for Automated Road Transport: long-term framework to the strategic planning
 of research and pre-deployment programmes for connected and automated driving on roads at EU and
 national levels in a systemic approach (vehicle, interactions, infrastructure, technical and non-technical
 enablers and societal impact)
- **Batteries**: Towards a competitive European industrial battery value chain: development of a world-class European R&I system on batteries, with a view towards European industrial leadership. Develop a coherent strategic programme, in cooperation with industry and research community, substantially contributing to fulfilling the Paris Agreement, and enhance the competitiveness of current and emerging European industries along the battery value chain.
- Clean Energy Transition: respond to the call for decarbonisation in medium-and tong-term in a houstic way, synthesizing all fragmented actions to allow for greater integration of relevant search & Nemzeti Kutatási, Fejlesztési És INNOVÁCIÓS HIVATAL INNOVÁCIÓS HIVATAL

Channels for H2020 ICT Funding Third Party Calls







EUROPEAN AI-ON-DEMAND PLATFORM



Central access point:

- integrating tools and resources
- offering solutions and support to all users of AI to integrate such technology into application, products and services



THE NGI INITIATIVE: AN INTERNET OF HUMANS

RESILIENT. TRUSTWORTHY. SUSTAINABLE.

OPEN CALLS: https://www.ngi.eu/opencalls/

The **Next Generation Internet (NGI) initiative**, launched by the European Commission in the autumn of 2016, aims to shape the future internet as an interoperable platform ecosystem that embodies the values that Europe holds dear







14MS in a Nutshell

I4MS, ICT Innovation for Manufacturing SMEs, is a European initiative supporting manufacturing SMEs and mid-caps in the widespread use of information and communication technologies (ICT) in their business operations.

Under I4MS, SMEs can apply for technological and financial support to conduct small experiments allowing them to test digital innovations in their business via open calls. The I4MS project is now in its third phase with each phase having complementary objectives.

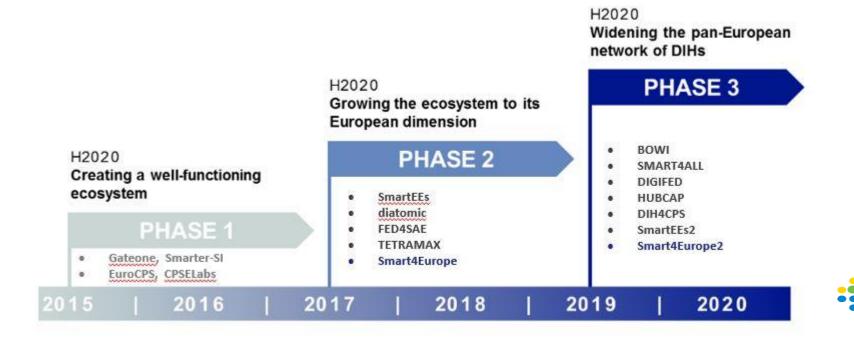




HORIZON 2020



Evolution of the SAE Initiative



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Topic Tree



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Topic Tree

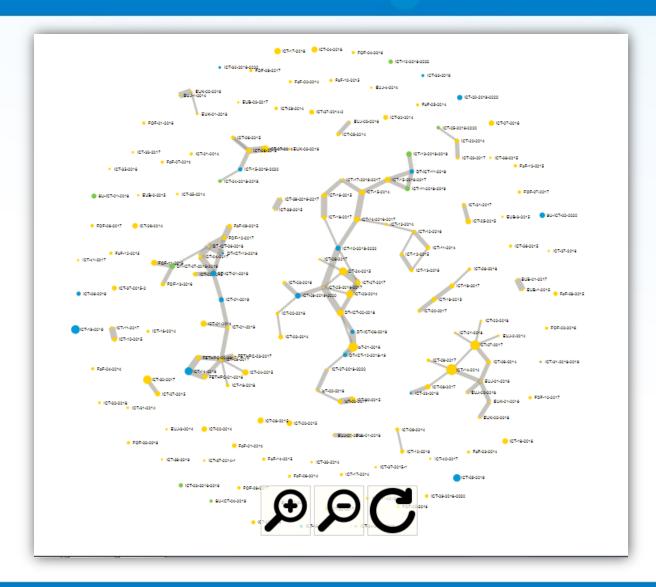
How are call topics linked?

How have these areas evolved over the years?

What is the new focus this year?



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ICT 2020

1-3 Dec 2020

Cologne, Germany

INFORMATION
BROKERAGE
CONSORTIUM BUILDING
EXHIBITION



Web:

Brokerage: https://ict2020.ideal-ist.eu/ (opening soon)

Twitter: ODSMeu



Register



Create a profile



Share cooperation offers

- Project ideas
- Expertise
- Requests



Find & contact partners



A service offered by: the network of ICT National Contact Points

Artificial Intelligence & Robotics

AI & Robotics in Horizon

Face2Face virtual agora

Home

How it works

As stated in the communication from the European Commission on Artificial Intelligence for Europe and the Coordinated Action Plan between the European Commission and the Member States, while Europe has undeniable strengths with its many leading research centres, efforts are scattered.

To ensure European strategic autonomy in such critical technology as AI, underpinning most of our future professional and private activities, with huge potential socio-economic impact, it is essential to reinforce and build on Europe's assets in AI, including its world-class researcher community, in order to stay at the forefront of AI developments.

Therefore joining forces will be crucial to be competitive at international level. The European Commission has published a series of calls in the area of Artificial Intelligence and Robotics in Work Programme 2020. The objective is to foster cooperation among the best research teams, industrial actors, and user organisations across Europe.

This Face2Face Virtual Agora is brought to you by Ideal-ist, the network of National Contact Points for information and communication technologies in Horizon 2020.

The Face2Face Virtual Agora offers a unique networking facility for all actors in the Al field!

Why should you register?

- build quality partnerships for participating in the upcoming Horizon 2020 AI & Robotics call
- · facilitate the setup of project consortia for Horizon 2020 calls
- · discuss and develop new project ideas on AI at international level
- · acquire new cross-border contacts and initiate collaborations
- promote your research expertise, technologies and know-how
- · initiate requests for complementary expertise needed for your project proposal

Virtual Agora topics

The current edition of the virtual agora addresses the following Horizon 2020 topics:

Register now Open until 26 November 2020

ORGANISED BY





ICT Proposers' Day

19-20 Sep 2019

Helsinki, Finland

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Web: https://ec.europa.eu/digital-single-market/en/news/digital-

excellence-forum-ict-proposers-day-2019

Brokerage: https://ict2019.ideal-ist.eu/

Twitter: openses:



Thank you for your attention!